

Serial No. 09/020,716
Amendment Dated 01/25/2005
Reply to Office Action of 07/28/2004

REMARKS/ARGUMENTS

Claims 79, 90, 91, 103, 105, and 112-116 are pending in the application.

Claim 103 has been cancelled without prejudice.

Claims 112-116 have been amended to recite: "...one or both...". No new matter....

Reexamination and reconsideration of the claims is respectfully requested.

Rejections under 35 U.S.C. §112

Claims 79, 90, 91, 103, 105, and 112-116 are rejected under 35 USC §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Office Action states: "Claims 112-116, and claims 79, 90, 91, 103, and 105 dependent thereon, are indefinite and confusing in the recitation of 'one or more' with regard to a range of mole percent of lysine and a range of mole percent of a sulfur containing amino acid, it is unclear what is intended, since only two ranges appear."

Claim 103 has been cancelled without prejudice. Claims 112-116 have been amended to recite "one or both". It is believed the amendment obviates the rejection.

The Office Action states: "Claims 115 and 116 and all claims dependent thereon, are indefinite in that they are unduly alternative in the multiple recitations of 'and/or' in the claims as stated in the last Office Action."

Claims 115 and 116 were amended in the amendment of January 19, 2004 to remove "and/" to recite only "or". It is believed the amendment obviates the rejection.

Claims 79, 90, 91, 103, 105 and 112-116 are rejected under 35 USC §112, first paragraph as failing to comply with the enablement requirement.

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The Office Action states: "The specification does not teach the range of 7 mole% to 40 mole% of lysine or 6 mole% to 40 mole% of sulfur-containing amino acids for any seed protein and further does not teach any seed proteins having both of these ranges."

Claim 103 has been cancelled without prejudice. Claims 112-116 have been amended to read: "...one or both..."

The claims as amended in the paper of January 19, 2004 recite: "...a polynucleotide encoding a barley alpha-hordothionin protein modified to contain...". The specification provides the necessary disclosure for one of skill in the art to make and use the invention commensurate in scope with the present claims. Table 1, page 40 of the specification demonstrates increased lysine and cysteine obtained by using constructs comprising the modified barley alpha-hordothionin (HT12) and seed-preferred promoters. The 1.132 Declaration signed by co-inventor Rudolf Jung and submitted October 18, 1999 provides results that demonstrate the effectiveness of using a construct comprising HT12 (modified barley alpha-hordothionin) and an endosperm-preferred promoter to increase lysine, cysteine and methionine. The specification on page 4, lines 16-20 disclose a seed protein having:

".....an elevated level of at least one preselected amino acid compared to a seed from a corresponding plant which has not been transformed, wherein the amino acid is lysine, threonine, or tryptophan and optionally a sulfur-containing amino acid."

Supporting arguments previously submitted in the amendment filed January 19, 2004 are maintained for reasons of record.

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Rejections under 35 U.S.C. §102

Claim 103 is rejected under 35 USC §102(b) as being anticipated by Powell et al (US Patent 3,909,288).

The Office Action states: "The claim is drawn to a food or feed product derived produced [sic] from the transformed plant seed of claim 114. Powell et al teach oil and starch produced from corn, wherein the oil and starch would be the same as that claimed, given that the transgene introduced into the plant seed would not confer any patentably distinguishable properties from any corn oil or corn starch, including that taught by Powell, et al."

Claim 103 has been cancelled without prejudice. It is believed the amendment obviates the rejection.

Rejections under 35 U.S.C. §103

Claims 79, 90, 91, 103, 105, and 112-116 are rejected under 35 USC 103(a) as being obvious over Rao et al (US Patent 5,885,802). The rejection is maintained for the reasons of record set forth in the Official action mailed December 11, 2001.

The Office Action states: "...it would have been obvious to substitute an endosperm preferred promoter in the method of Rao given that Rao's invention is drawn to producing elevated levels of lysine in seeds."

Claim 103 has been cancelled without prejudice. Claims 112-116 have been amended.

Arguments previously submitted in the amendment filed January 19, 2004 are maintained. The disclosure of Rao '802 teaches away from the use of an endosperm-preferred promoter as taught by the instant invention. Additionally there is no motivation to use an endosperm-preferred promoter to modify the invention of Rao '802. The Examiner has not provided support for the conclusory statements of the previous Office Action that promoters are functional equivalents and therefore

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has provided no motivation to make the necessary modifications and thus has not made a *prima facie* obvious case over Rao '802.

Claims 79, 90, 91, 103, 105, and 112-116 remain rejected under 35 USC 103(a) as being obvious over Rao et al (US Patent 5,990,389) in view of applicant's admission. The rejection is maintained for the reasons of record set forth in the Official action mailed December 11, 2001.

The Office Action states: "...it would have been obvious to substitute an endosperm preferred promoter in the method of Rao given that Rao's invention is drawn to producing elevated levels of lysine in seeds."

Claim 103 has been cancelled without prejudice. Claims 112-116 have been amended.

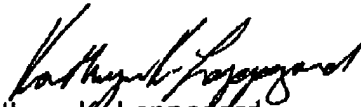
Arguments previously submitted in the amendment filed January 19, 2004 are maintained. The Examiner has not supported the conclusory statements of the December 11, 2001 Office action that promoters are functional equivalents. By disclosing a strong constitutive promoter, the '389 patent teaches away from the instant invention. The Examiner has provided no motivation to make such modifications and thus has not made a *prima facie* case for obviousness over Rao '389.

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CONCLUSION

In view of the above comments and amendments, withdrawal of the outstanding rejections and allowance of the remaining claims is respectfully requested.

Respectfully submitted,


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